



APPENDICES

- page 43* **A COMPARISON OF EXISTING AND PROPOSED ZONING**
- page 45* **B PROPOSED ZONING**
- page 71* **C ANTICIPATED DEVELOPMENT UNDER EXISTING AND PROPOSED ZONING**
- page 73* **D CONCORD-ALEWIFE DESIGN GUIDELINES**
- page 75* **E CRITICAL MOVEMENTS ANALYSIS**
- page 79* **F TRANSPORTATION RECOMMENDATIONS**

APPENDIX

A

Comparison of Existing and Proposed Zoning

EXISTING						PROPOSED				
AREA	ZONING DIST.	USE		BASE	SPCL. PERMIT	ZONING DIST.	USE		BASE	SPECIAL PERMIT
Quadrangle northwest	IB-2	Res	FAR Height	1.5 85'	Same	IB-2 (mod)/ AOD 1	Res	FAR Height	0.75 35'	1.5 65' (35-45' near Highlands)
		Comm	FAR Height	1.5 85'	Same		Comm	FAR Height	0.75 35'	1.0 55' (35-45' near Highlands)
Quadrangle northeast	IB-2	Res	FAR Height	1.5 85'	Same	IB-2 (mod)/ AOD 2	Res	FAR Height	0.75 35'	1.5 70-85' (105' with TDR)
		Comm	FAR Height	1.5 85'	Same		Comm	FAR Height	0.75 35'	1.25 70' (85' with TDR)
Quadrangle southwest	O-2	Res	FAR Height	2.0 85'	Same	O-1/AOD 3	Res	FAR Height	0.75 35'	2.0 65' (35-45' near Highlands)
		Comm	FAR Height	1.5 35-70'	Same 35-85'		Comm	FAR Height	0.75 35'	1.0 55' (35-45' near Highlands)
Quadrangle southeast	O-2	Res	FAR Height	2.0 85'	Same	O-1/AOD 4	Res	FAR Height	0.75 35-75'	2.0 85' (105' with TDR)
		Comm	FAR Height	1.5 35-70'	Same 35-70'		Comm	FAR Height	0.75 35-70'	1.0 70' (85' with TDR)
Shopping Center	BC	Res	FAR Height	2.0 55'	Same	BA/AOD 5	Res	FAR Height	1.75 45'	2.0 55-85' (105' with TDR)
		Comm	FAR Height	1.25 55'	Same		Comm	FAR Height	1.0 35'	1.25 55-70' (85' with TDR)
Triangle	O-2/ PUD-5	Res	FAR Height	2.0 85'	Same	O-2A/AOD 6	Res	FAR Height	1.5 70'	2.0 85-105' (125' with TDR)
		Comm	FAR Height	1.5 70'	1.75 85'		Comm	FAR Height	1.25 60'	1.75 85' (105' with TDR)

APPENDIX

B

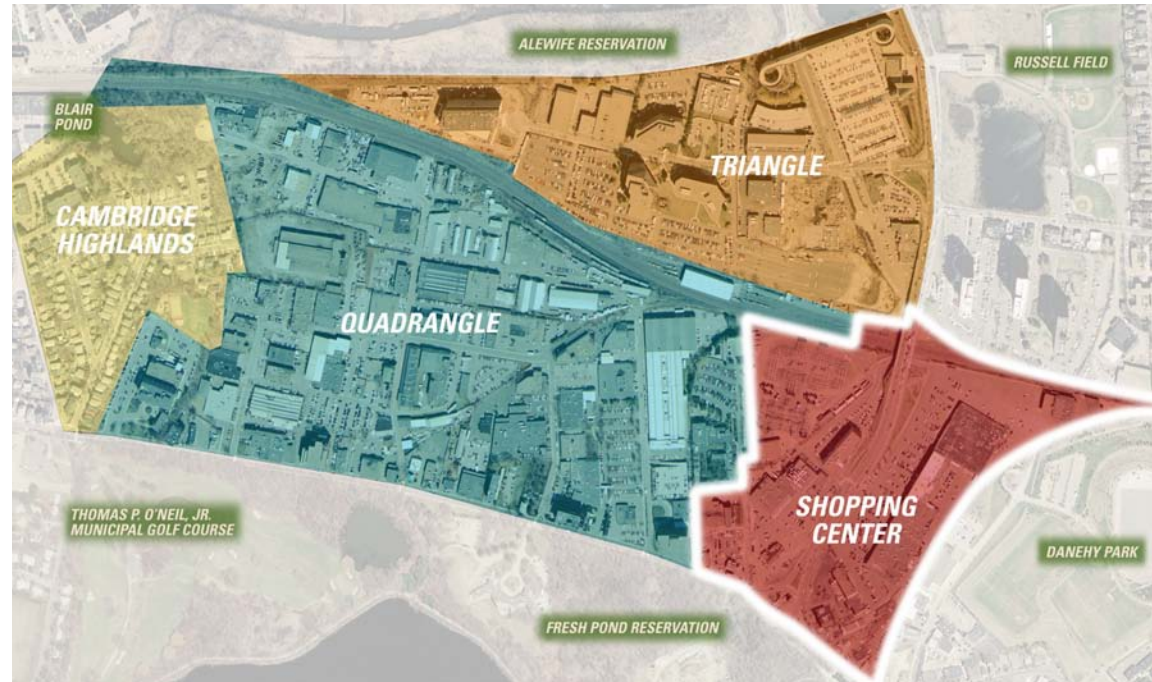
Committee Zoning Recommendations

Shopping Center	46
Triangle	50
Quadrangle Northwest	54
Quadrangle Northeast	58
Quadrangle Southwest	62
Quadrangle Southeast	66

Shopping Center

ZONING GOALS

- > Encourage new residential development.
- > Encourage mix of retail, including destination and neighborhood.
- > Support development of structured parking.
- > Create incentives that encourage future development to be responsive to storm-water, open space, and transportation objectives.



COMMITTEE ZONING RECOMMENDATIONS | **SHOPPING CENTER**

CURRENT ZONING

BASE

BUSINESS C

FAR

- Commercial: 1.25
- Residential: 2.0

HEIGHT

- Commercial: 55'
- Residential: 55'
- 35' (or height permitted in the abutting residential district) within 50' of a residential district line.

MINIMUM YARD

- Front: none
- Side: none
- Rear: 20' (or 2/3 of rear wall height).
No rear yard where the rear lot line abuts a business or industrial district.

MINIMUM RATIO OF USABLE OPEN SPACE
to lot area: none

PROPOSED ZONING STRATEGIES

BASE

BUSINESS A

FAR

- Commercial: 1.0
- Residential: 1.75
- Note: For parcels where the maximum permitted special-permit GFA is less than 10,000 sq. ft., the special-permit FARs may be available as-of-right

HEIGHT

- Commercial: 35'
- Residential: 45'

USES

Retail, office, housing

MINIMUM YARD

- Front: none (commercial), formula (housing)
- Side: none (commercial), formula (housing)
- Rear: 20' (commercial); formula (housing); 25' front yard at Parkway

PERMEABILITY REQUIREMENT:

- 25% of lot **or** a signoff from the Cambridge Department of Public Works (DPW) noting that the development meets the requirement of accommodating the 2- to 25-year flood event on-site as outlined in "Low Impact Development in Cambridge: Concepts and Criteria" (currently under development by the DPW)

GREEN AREA REQUIREMENT:

- 15% of lot (permeability and green area requirements may be satisfied on the same part of the lot)

COMMITTEE ZONING RECOMMENDATIONS | **SHOPPING CENTER**

CURRENT ZONING

SPECIAL PERMIT/OVERLAY

No equivalent provision in current zoning

PROPOSED ZONING STRATEGIES

SPECIAL PERMIT

FAR

- Commercial: 1.25
- Residential: 2.0

USES

- Retail, office, housing; no more than 50% of the development to be nonresidential

HEIGHT

- Commercial
 - 55'–70' (heights over 55' limited to buildings or elements of buildings with a floorplate of 15,000 sf or less located at least 50' apart)
- Residential
 - 55'–85' (heights over 55' limited to buildings or elements of buildings with a floorplate of 10,000 sf or less located at least 50' apart)
 - Heights up to 105' allowed for FAR transferred to this district through TDR. Heights over 85' limited to buildings or elements of buildings with a floorplate of 6,000 sf or less located at least 50' apart
- Parkway Overlay District height limits to remain

POSSIBLE ADDITIONAL RELIEF/REQUIREMENTS

- Allow pooled parking
- Parking GFA waiver
- Allow pooled green/permeability area
- Setback waivers from base requirements
- Provide for infrastructure improvements

CURRENT ZONING

TRANSFER OF DEVELOPMENT RIGHTS
No equivalent provision in current zoning

PROPOSED ZONING STRATEGIES

- Exemption from 25' setback at Alewife Brook Parkway if accommodating a pedestrian connection
- Meet DPW requirement that each development accommodate the 2- to 25-year flood event on-site as outlined in “Low Impact Development in Cambridge: Concepts and Criteria” (currently under development by the DPW)

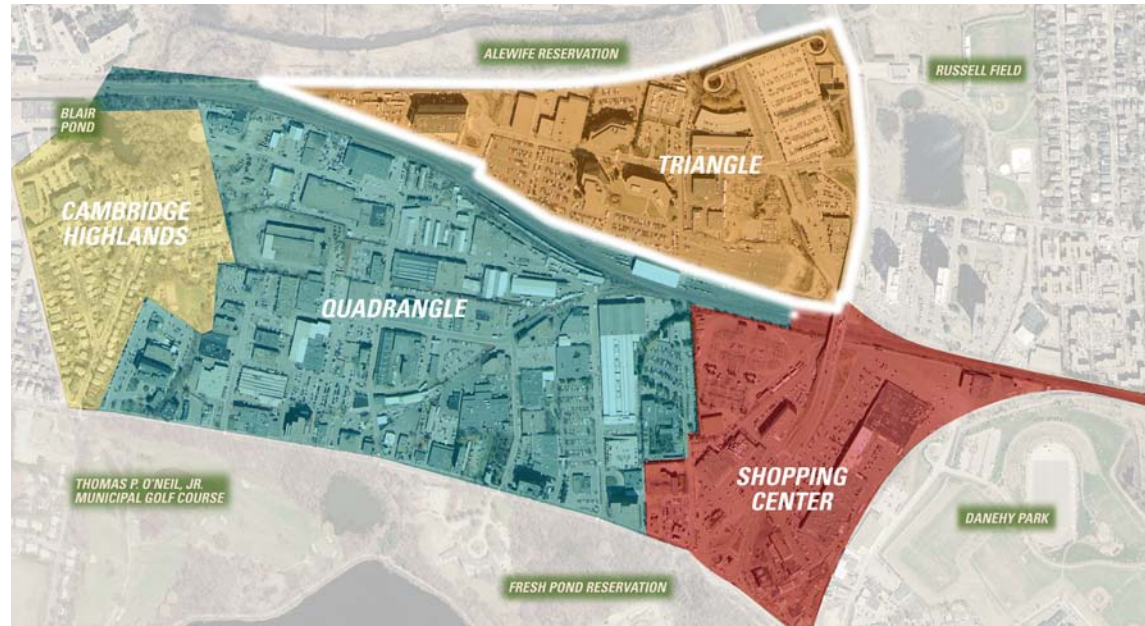
TRANSFER OF DEVELOPMENT RIGHTS

- Within the district consistent with plan goals, and receive from Quadrangle Northwest and Southwest
- The Shopping Center is a desirable area in which to locate TDR-related development.

The Triangle

ZONING GOALS

- > Encourage increase in transit-oriented development, with residential focus closer to T.
- > Support development of structured parking.
- > Encourage office/R&D development with first-floor retail to support walkable Cambridgepark Drive “boulevard.”
- > Create incentives that encourage future development to be responsive to storm-water, open space, and transportation objectives, including increased permeability.
- > Create incentives for cooperation among property owners to meet study goals around improved public and private realm.



COMMITTEE ZONING RECOMMENDATIONS | THE TRIANGLE

CURRENT ZONING

BASE

OFFICE 2

FAR

- Commercial: 1.5
- Residential: 2.0

HEIGHT

- Commercial: 70'
- Residential: 85'
- 35' (or height permitted in the abutting residential district) within 50' of a residential district line.

MINIMUM YARD (FEET)

- Front: $\frac{H+L^{(a)}}{4}$
- Side: $\frac{H+L}{5}$
- Rear: $\frac{H+L^{(c)}}{4}$

MINIMUM RATIO OF USABLE OPEN SPACE
to lot area: 15%

PROPOSED ZONING STRATEGIES

BASE

OFFICE 1A

FAR

- Commercial/retail: 1.25
- Residential: 1.5
- Note: For parcels where the maximum permitted special-permit GFA is less than 10,000 sq. ft., the special-permit FARs may be available as-of-right

USES

- Office/housing

HEIGHT

- Commercial: 60'
- Residential: 70'

MINIMUM YARD

- 25' front yard at Parkway; formulas elsewhere

PERMEABILITY REQUIREMENT

- 25% of lot **or** a signoff from the Cambridge Department of Public Works () noting that the development meets the requirement of accommodating the 2- to 25-year flood event on-site as outlined in "Low Impact Development in Cambridge: Concepts and Criteria" (currently under development by the DPW)

GREEN AREA REQUIREMENT

- 15% of lot (the permeability and green area requirements noted above may be satisfied on the same part of the lot)

ARCHITECTURAL AND SITE PLAN STANDARDS

- parking location, front-door location, glass area, build-to lines

COMMITTEE ZONING RECOMMENDATIONS | THE TRIANGLE

CURRENT ZONING

SPECIAL PERMIT/OVERLAY: PUD 5

FAR

- Commercial: 1.75
- Residential: 2.0

HEIGHT

- Commercial: 85'
- Residential: 85'

MINIMUM YARD SETBACKS

- None

MINIMUM RATIO OF USABLE OPEN SPACE
to lot area: 15%

PROPOSED ZONING STRATEGIES

SPECIAL PERMIT/OVERLAY

FAR

- Commercial: 1.75
- Residential: 2.0
- An FAR bonus of up to 0.25 may be provided for development that facilitates a pedestrian connection across the railroad tracks. This could include building the connection, providing ROW or a landing site for a connection, or designing a building that could accommodate a connection.

HEIGHT

- Commercial: 85'
- Residential:
 - 85'–105' (heights over 85' limited to buildings or elements of buildings with a floorplate of 10,000 sf or less located at least 50' apart)
 - Heights up to 120' allowed for FAR transferred to this district through TDR and to accommodate FAR bonus. Heights over 105' limited to buildings or elements of buildings with a floorplate of 6,000 sf or less located at least 50' apart
- Parkway Overlay District height limits to remain

USES

Uses allowed in base district, retail (to be located on the ground floor and to occupy no more than 10% of total GFA, with individual establishments to be no more than 10,000 sq. ft.)

COMMITTEE ZONING RECOMMENDATIONS | **THE TRIANGLE**

CURRENT ZONING

TRANSFER OF DEVELOPMENT RIGHTS

No equivalent provision in current zoning

PROPOSED ZONING STRATEGIES

POSSIBLE ADDITIONAL RELIEF/REQUIREMENTS

- Allow pooled parking
- Parking GFA waiver
- Allow pooled green/permeability area
- Setback waivers from base requirements
- Allow limited retail. Relief from retail cap in specific locations, if consistent with plan.
- Provide for infrastructure improvements
- Meet DPW requirement that each development accommodate the 2- to 25-year flood event on-site as outlined in “Low Impact Development in Cambridge: Concepts and Criteria” (currently under development by the DPW)

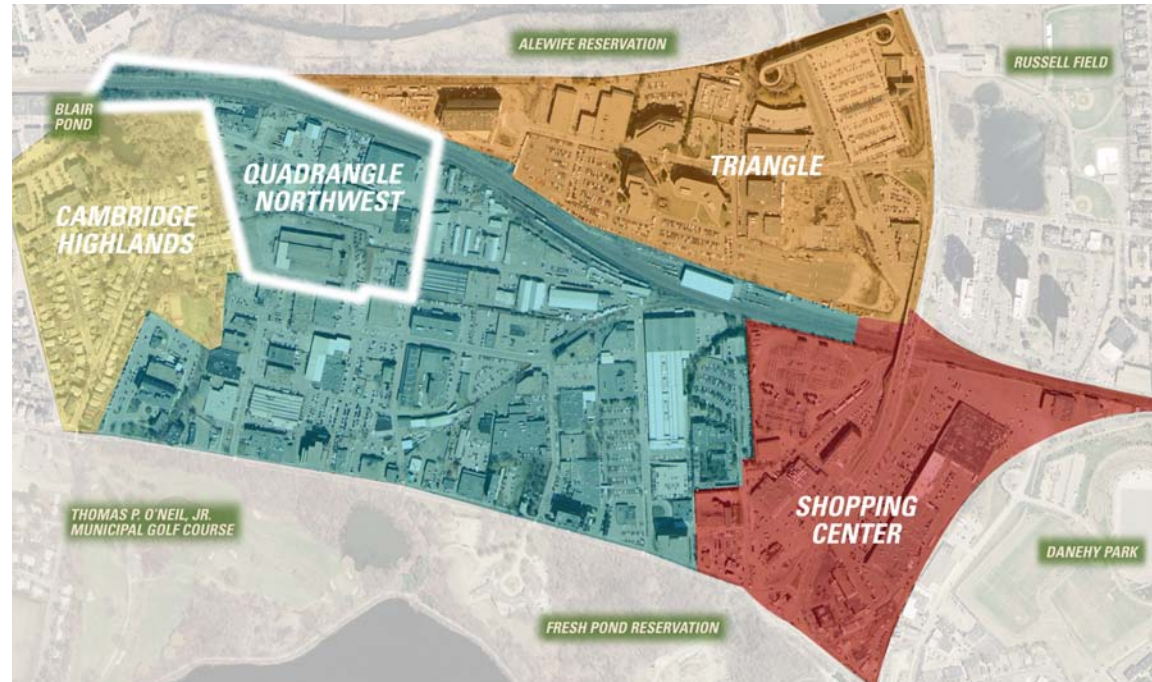
TRANSFER OF DEVELOPMENT RIGHTS

- Within the district consistent with plan goals, and receive from Quadrangle Northwest and Southwest.
- TDR-related development should be used to achieve plan goals such as replacing surface parking and should result in transit-oriented development.
- TDR-related development should be set back from Alewife Reservation.

Quadrangle Northwest

ZONING GOALS

- > Encourage lower-density mixed-use R&D/office development in proximity to the Highlands.
- > Create incentives that encourage future development to be responsive to stormwater, open space, and transportation objectives.
- > Create incentives for cooperation among property owners to meet study goals for improved public and private realm, including creation of structured parking and increased permeability.



COMMITTEE ZONING RECOMMENDATIONS | **QUADRANGLE NORTHWEST**

CURRENT ZONING

BASE

IND.B-2

FAR

- Commercial: 1.5
- Residential: 1.5

HEIGHT

- Commercial: 85'
- Residential: 85'
- 35' within 100' of a residential district

MINIMUM YARD

- Front: 0
- Side: 0(b)
- Rear: 0(b)

MINIMUM RATIO OF USABLE OPEN SPACE
to lot area: none

PROPOSED ZONING STRATEGIES

BASE

INDUSTRY C (reconfigured)

FAR

- 0.75 all uses
- Note: For parcels where the maximum permitted special-permit GFA is less than 10,000 sq. ft., the special-permit FARs may be available as-of-right

HEIGHT

- 35' all uses

USES

- R&D, office, housing, light industrial

MINIMUM YARD

- Front yard: 15'
- Yards adjacent to residential district or use: 25'

PERMEABILITY REQUIREMENT

- 25% of lot **or** a signoff from the Cambridge Department of Public Works (DPW) noting that the development meets the requirement of accommodating the 2- to 25-year flood event on-site as outlined in "Low Impact Development in Cambridge: Concepts and Criteria" (currently under development by the DPW)

GREEN AREA REQUIREMENT

- 15% of lot (the permeability and green area requirements may be satisfied on the same part of the lot)

ARCHITECTURAL AND SITE PLAN STANDARDS

- parking location, front door, glass area, build-to lines

COMMITTEE ZONING RECOMMENDATIONS | **QUADRANGLE NORTHWEST**

CURRENT ZONING

SPECIAL PERMIT/OVERLAY

No equivalent provision in current zoning

PROPOSED ZONING STRATEGIES

SPECIAL PERMIT

FAR

- Commercial: 1.0
- Residential: 1.5
- An FAR bonus of up to 0.25 may be provided for public open space with stormwater feature, and east-west main road. This could include building the connection, providing ROW or a landing site for a connection, or designing a building that could accommodate a connection, donating land for the public open space, or providing ROW for the east-west road.

HEIGHT

- Commercial: 55'
- Residential: 65'
- 35' within 100' of Res C-1 and OS districts, 45' within 200' of all uses

USES

- Uses allowed in base district, retail (to be located on the ground floor and to occupy no more than 10% of total GFA, with individual establishments to be no more than 10,000 sq. ft.)

POSSIBLE ADDITIONAL RELIEF/REQUIREMENTS

- Allow pooled parking
- Parking GFA waiver
- Allow pooled green/permeability area
- Setback waivers from base district requirements
- Provide for infrastructure improvements

CURRENT ZONING

TRANSFER OF DEVELOPMENT RIGHTS
No equivalent provision in current zoning

PROPOSED ZONING STRATEGIES

- Meet DPW requirement that each development accommodate the 2- to 25-year flood event on-site as outlined in “Low Impact Development in Cambridge: Concepts and Criteria” (currently under development by the DPW).
- Relief from retail cap in specific locations if consistent with plan.

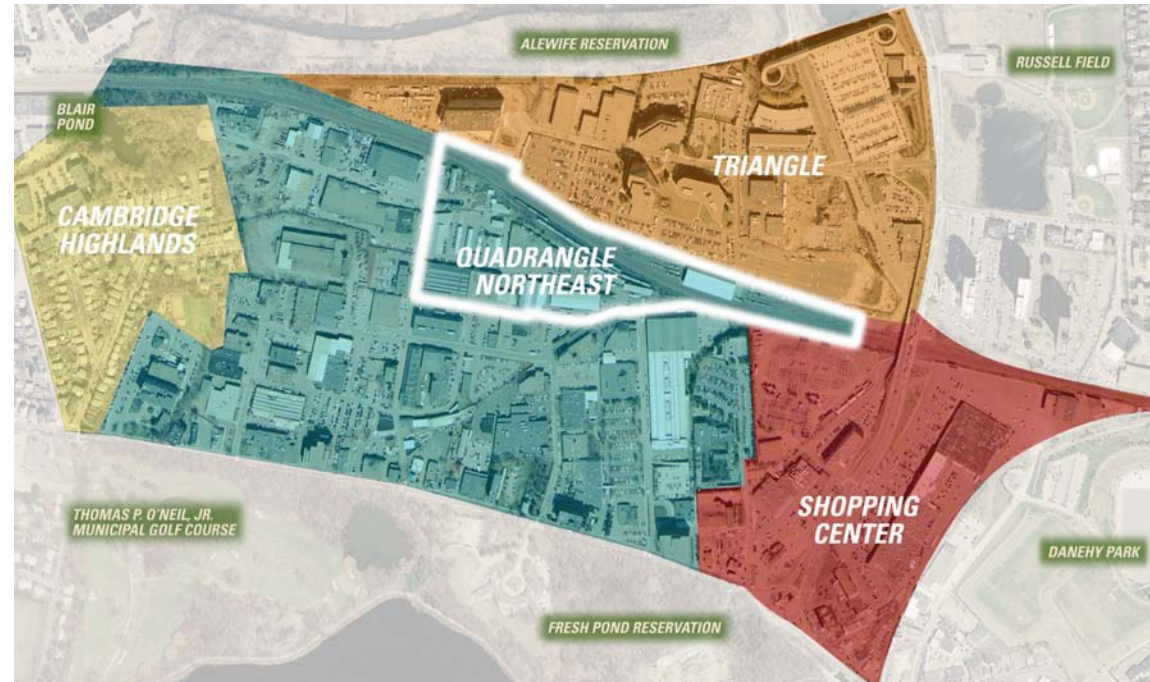
TRANSFER OF DEVELOPMENT RIGHTS

- Property owners are encouraged to use TDR, transferring development out to defined Receiving Areas (Quadrangle Southeast and Northeast [if transit proximity created], Shopping Center, and Triangle)
- If all allowed FAR is transferred out, a bonus of 0.75 10 pt may be allowed for residential or incubator uses if LID principles are utilized and remaining parts of the site are used for public open space and stormwater management.

Quadrangle Northeast

ZONING GOALS

- > Encourage mixed-use, high-density development emphasizing residential, office, and light industrial.
- > Create incentives that encourage future development to be responsive to storm-water, open space, and transportation objectives.
- > Create incentives for cooperation among property owners to meet study goals around improved public and private realm, including creation of increased permeability and structured parking.



COMMITTEE ZONING RECOMMENDATIONS | **QUADRANGLE NORTHEAST**

CURRENT ZONING

BASE

IND.B-2

FAR

- Commercial 1.5
- Residential 1.5

HEIGHT

- Commercial 85'
- Residential 85'

MINIMUM YARD (FEET)

- Front: 0
- Side: 0(b)
- Rear: 0(b)

MINIMUM RATIO OF USABLE OPEN SPACE

to lot area: none

PROPOSED ZONING STRATEGIES

BASE

INDUSTRY C (reformulated)

FAR

- 0.75 all uses
- Note: For parcels where the maximum permitted special-permit GFA is less than 10,000 sq. ft., the special-permit FARs may be available as-of-right

HEIGHT

- 35' all uses

USES

- light industrial, office, residential

PERMEABILITY REQUIREMENT

- 25% of lot or a signoff from the Cambridge Department of Public Works (DPW) noting that the development meets the requirement of accommodating the 2- to 25-year flood event on-site as outlined in “Low Impact Development in Cambridge: Concepts and Criteria” (currently under development by the DPW)

GREEN AREA REQUIREMENT

- 15% of lot (the permeability and green area requirements may be satisfied on the same part of the lot)

MINIMUM YARD

- Front: 15'

ARCHITECTURAL AND SITE PLAN STANDARDS

- parking location, front door, glass area, build-to lines

COMMITTEE ZONING RECOMMENDATIONS | **QUADRANGLE NORTHEAST**

CURRENT ZONING

SPECIAL PERMIT/OVERLAY

No equivalent provision in current zoning

PROPOSED ZONING STRATEGIES

SPECIAL PERMIT

FAR

- Commercial: 1.25
- Residential: 1.5
- An FAR bonus of up to 0.25 may be provided for development that facilitates a pedestrian connection across the railroad tracks, public open space with stormwater feature, and east-west main road. This could include building the connection, providing ROW or a landing site for a connection, or designing a building that could accommodate a connection, donating land for the public open space, or providing ROW for the east-west road.

HEIGHT

- Commercial: 70'
- Residential:
 - 70'–85' (heights over 70' limited to buildings or elements of buildings with a floorplate of 10,000 sf or less located at least 50' apart)
 - Heights up to 105' allowed for FAR transferred to this district through TDR and to accommodate FAR bonus. Heights over 85' limited to buildings or elements of buildings with a floorplate of 6,000 sf or less located at least 50' apart
- Parkway Overlay District height limits to remain

USES

- Uses allowed in base district, retail (to be located on the ground floor and to occupy no more than 10% of total GFA, with individual establishments to be no more than 10,000 sq. ft.)

CURRENT ZONING

TRANSFER OF DEVELOPMENT RIGHTS
No equivalent provision in current zoning

PROPOSED ZONING STRATEGIES

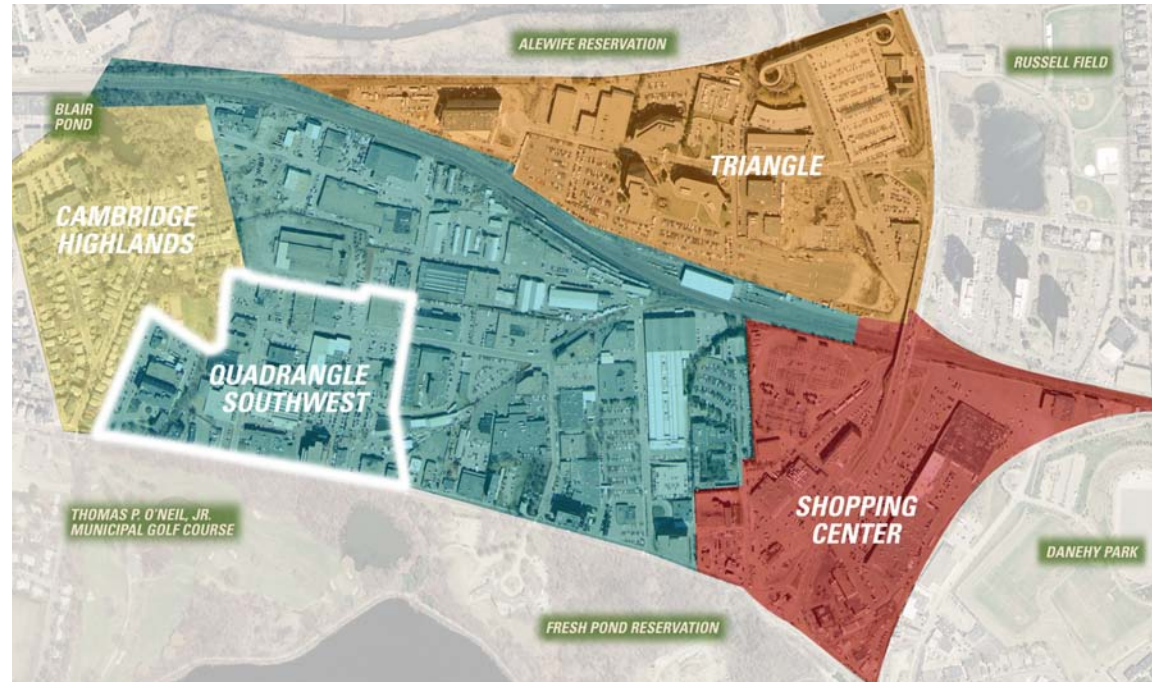
- POSSIBLE ADDITIONAL RELIEF/REQUIREMENTS**
- Allow pooled parking
 - Parking GFA waiver
 - Allow pooled green/permeability area
 - Setback waivers from base district requirements
 - Provide for infrastructure improvements
 - Meet DPW requirement that each development accommodate the 2- to 25-year flood event on-site as outlined in “Low Impact Development in Cambridge: Concepts and Criteria” (currently under development by the DPW).
 - Relief from retail cap in specific locations if consistent with Plan.

- TRANSFER OF DEVELOPMENT RIGHTS**
- Within the district consistent with plan goals, and receive from Quadrangle Northwest and Southwest.
 - TDR-related development should be used to achieve plan goals such as replacing surface parking and should result in transit-oriented development.

Quadrangle Southwest

ZONING GOALS

- > Encourage mixed use, with residential development along Concord Avenue.
- > Create incentives that encourage future development to be responsive to storm-water, open space, and transportation objectives, including increased permeability.
- > Create incentives for cooperation among property owners to meet study goals around improved public and private realm.



COMMITTEE ZONING RECOMMENDATIONS | **QUADRANGLE SOUTHWEST**

CURRENT ZONING

BASE

OFFICE 2

FAR

- Commercial 1.5
- Residential 2.0

HEIGHT

- Commercial 70'
- Residential 85'
- 35' within 125' of a residential district

MIN. YARD (FEET)

- Front: $\frac{H+L^{(a)}}{4}$
- Side: $\frac{H+L}{5}$
- Rear: $\frac{H+L^{(c)}}{4}$

MINIMUM RATIO

OF USABLE OPEN

SPACE to lot area:

15% (residential)

BASE

IND.B-2

FAR

- Commercial 1.5
- Residential 1.5

HEIGHT

- Commercial 85'
- Residential 85'

MIN. YARD (FEET)

- Front: 0
- Side: 0(b)
- Rear: 0(b)
- Min ratio of usable open space to lot area: none

PROPOSED ZONING STRATEGIES

BASE

OFFICE 1

FAR

- 0.75 all uses
- Note: For parcels where the maximum permitted special-permit GFA is less than 10,000 sq. ft., the special-permit FARs may be available as-of-right

HEIGHT

- 35' all uses

MINIMUM YARD

- Formulas, with 10' minimum

USES

- Residential, office

PERMEABILITY REQUIREMENT

- 25% of lot **or** a signoff from the Cambridge Department of Public Works (DPW) noting that the development meets the requirement of accommodating the 2- to 25-year flood event on-site as outlined in "Low Impact Development in Cambridge: Concepts and Criteria" (currently under development by the DPW)

GREEN AREA REQUIREMENT

- 15% of lot (permeability and green area requirements may be satisfied on the same part of the lot)

MINIMUM YARD

- Front: 15'
- Yards adjacent to residential district or use: 25'

ARCHITECTURAL AND SITE PLAN STANDARDS

- Parking location, front door location, glass area, build-to lines

COMMITTEE ZONING RECOMMENDATIONS | **QUADRANGLE SOUTHWEST**

CURRENT ZONING

SPECIAL PERMIT/OVERLAY

No equivalent provision in current zoning

PROPOSED ZONING STRATEGIES

SPECIAL PERMIT

FAR

- Commercial: 1.0
- Residential: 2.0
- An FAR bonus of up to 0.25 may be provided for public open space with stormwater feature, and east-west main road. This could include building the connection, providing ROW or a landing site for a connection, or designing a building that could accommodate a connection, donating land for the public open space, or providing ROW for the east-west road.

HEIGHT

- Commercial: 55'
- Residential: 65'
- 35' within 100' of Res C-1 and OS districts, 45' within 200' of all uses

USES

- Uses allowed in base district, retail (to be located on the ground floor and to occupy no more than 10% of total GFA, with individual establishments to be no more than 10,000 sq. ft.)

POSSIBLE ADDITIONAL RELIEF/REQUIREMENTS:

- Allow pooled parking
- Parking GFA waiver
- Allow pooled green/permeability area
- Provide for infrastructure improvements
- Setback waivers from base district requirements
- Allow limited retail

CURRENT ZONING

TRANSFER OF DEVELOPMENT RIGHTS
No equivalent provision in current zoning

PROPOSED ZONING STRATEGIES

- Meet DPW requirement that each development accommodate the 2- to 25-year flood event on-site as outlined in “Low Impact Development in Cambridge: Concepts and Criteria” (currently under development by the DPW).
- Relief from retail cap in specific locations if consistent with plan.

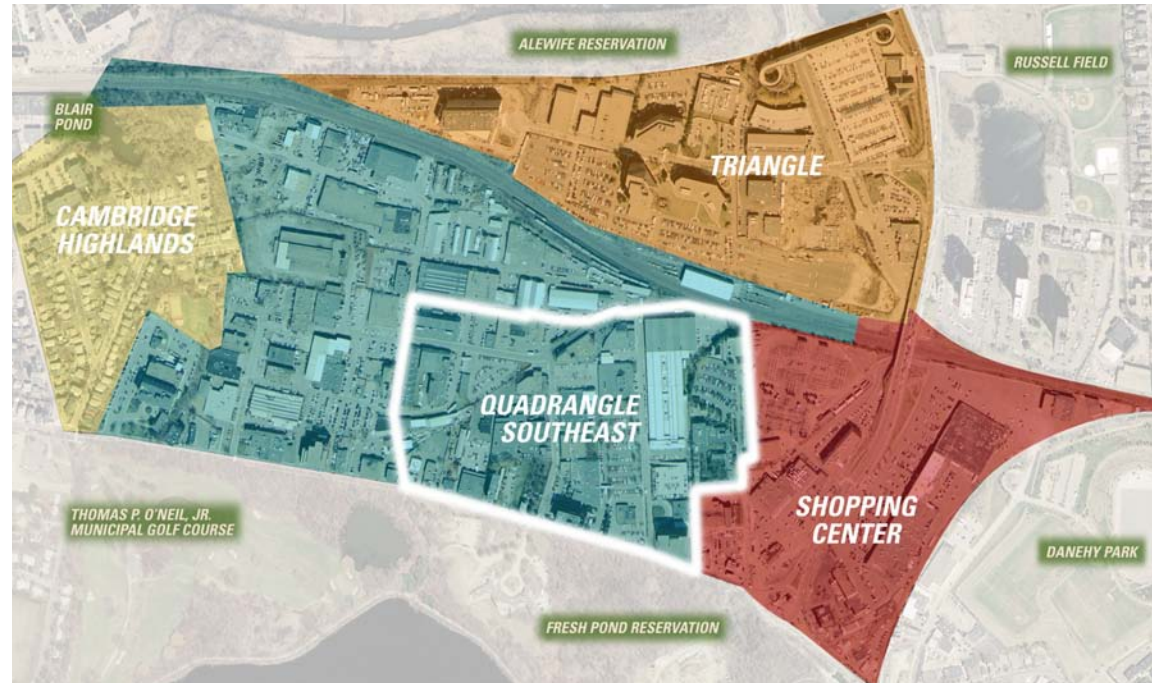
TRANSFER OF DEVELOPMENT RIGHTS

- Property owners are encouraged to use TDR, transferring development out to defined Receiving Areas (Quadrangle Southeast and Northeast [if transit proximity created], Shopping center, and Triangle)
- If all allowed FAR is transferred out, a bonus of 0.75 FAR may be allowed for residential or incubator uses if LID principles are utilized and remaining parts of the site are used for public open space and stormwater management.

Quadrangle Southeast

ZONING GOALS

- > Along Concord Avenue encourage mixed use, with residential and higher-density commercial development closer to parkway.
- > Create incentives that encourage future development to be responsive to storm-water, open space, and transportation objectives, including increased permeability.
- > Create incentives for cooperation among property owners to meet study goals around improved public and private realm.



COMMITTEE ZONING RECOMMENDATIONS | **QUADRANGLE SOUTHEAST**

CURRENT ZONING

BASE

OFFICE 2

FAR

- Commercial 1.5
- Residential 2.0

HEIGHT

- Commercial 70'
- Residential 85'
- 35' within 125' of a residential district

MINIMUM YARD (FEET)

- Front: $\frac{H+L^{(a)}}{4}$
- Side: $\frac{H+L}{5}$
- Rear: $\frac{H+L^{(c)}}{4}$

MINIMUM RATIO OF USABLE OPEN SPACE

to lot area: 15% (residential)

PROPOSED ZONING STRATEGIES

BASE

OFFICE 1

FAR

- 0.75 all uses
- Note: For parcels where the maximum permitted special-permit GFA is less than 10,000 sq. ft., the special-permit FARs may be available as-of-right

HEIGHT

- 35' all uses

MINIMUM YARD

- formulas, with 10' minimum

USES

- residential, office

PERMEABILITY REQUIREMENT

- 25% of lot or a signoff from the Cambridge Department of Public Works (DPW) noting that the development meets the requirement of accommodating the 2- to 25-year flood event on-site as outlined in “Low Impact Development in Cambridge: Concepts and Criteria” (currently under development by the DPW)

GREEN AREA REQUIREMENT

- 15% of lot (permeability and green area requirements may be satisfied on the same part of the lot)

SETBACKS

- Front: 15'
- Parkway front yard: 25'

ARCHITECTURAL AND SITE PLAN STANDARDS

- Parking location, front door, glass area, build-to lines

CURRENT ZONING

SPECIAL PERMIT/OVERLAY

No equivalent provision in current zoning

PROPOSED ZONING STRATEGIES

SPECIAL PERMIT

FAR

- Commercial: 1.0
- Residential: 2.0
- An FAR bonus of up to 0.25 may be provided for development that facilitates a pedestrian connection across the railroad tracks, public open space with stormwater feature, and east-west main road. This could include building the connection, providing ROW or a landing site for a connection, or designing a building that could accommodate a connection, donating land for the public open space, or providing ROW for the east-west road.

HEIGHT

- Commercial: 70'
- Residential: 85'
- Heights up to 105' allowed for FAR transferred to this district through TDR and to accommodate FAR bonus. Heights over 85' limited to buildings or elements of buildings with a floorplate of 10,000 sf or less located at least 50' apart
- Parkway Overlay District height limits to remain

USES

Uses allowed in base district, retail (to be located on the ground floor and to occupy no more than 10% of total GFA, with individual establishments to be no more than 10,000 sq. ft.)

POSSIBLE ADDITIONAL RELIEF/REQUIREMENTS:

- Allow pooled parking
- Parking GFA waiver
- Allow pooled green/permeability area

CURRENT ZONING

TRANSFER OF DEVELOPMENT RIGHTS
No equivalent provision in current zoning

PROPOSED ZONING STRATEGIES

- Setback waivers from base district requirements
 - Provide for infrastructure improvements
 - Meet DPW requirement that each development accommodate the 2- to 25-year flood event on-site as outlined in “Low Impact Development in Cambridge: Concepts and Criteria” (currently under development by the DPW).
 - Relief from retail cap in specific locations if consistent with plan.
- TRANSFER OF DEVELOPMENT RIGHTS**
- Within the district consistent with plan goals; the Quadrangle Southeast is a desirable area in which to receive density from Quadrangle Northwest and Southwest
 - TDR-related development should be used to achieve plan goals such as replacing surface parking and should result in transit-oriented development.

APPENDIX

C

Anticipated Development: Existing & Proposed Zoning

PROJECTIONS BY LOCATION

		PROJECTED 20-YEAR BUILD-OUT			
		UNDER EXISTING ZONING		UNDER PROPOSED ZONING	
LOCATION	EXISTING DEVELOPMENT	PROJECTED NEW	TOTAL	PROJECTED NEW	TOTAL
Triangle	1,696,400	596,487	2,292,887	707,388	2,403,788
Quadrangle	1,910,400	1,141,765	3,052,165	1,175,493	3,085,893
Highlands	361,300	33,694	394,994	35,541	396,841
Shopping Center	508,100	483,432	991,532	871,497	1,379,597
TOTAL	4,476,200	2,255,378	6,731,578	2,789,919	7,266,119

PROJECTIONS BY LAND USE

		UNDER EXISTING ZONING		UNDER PROPOSED ZONING	
LAND USE	EXISTING DEVELOPMENT	PROJECTED NEW	TOTAL	PROJECTED NEW	TOTAL
Commercial	3,257,200	1,423,460	4,680,660	1,297,935	4,555,135
Residential	710,900	573,152	1,284,052	1,315,319	2,026,219
Retail**	508,100	258,766	766,866	176,665	684,765
TOTAL	4,476,200	2,255,378	6,731,578	2,789,919	7,266,119

** Includes retail in Shopping Center only; retail in other locations is included in "commercial"

Concord-Alewife Design Guidelines

These urban design guidelines are recommended to guide the character of future development in the Concord-Alewife Study Area.

AREAWIDE GUIDELINES

- Break large blocks into smaller blocks, of sizes similar to those in surrounding Cambridge neighborhoods, to improve circulation and to be compatible with surrounding neighborhoods.
- Vary the design of individual buildings to create an architecturally diverse district.
- Street-level facades should include active uses such as frequent residential entrances, with setbacks for stoops and porches; neighborhood-serving retail including shops, restaurants, cafés; services for the public or for commercial offices such as fitness centers, cafeterias, day care centers; community spaces such as exhibition or meeting spaces; and commercial lobbies and front entrances.
- Encourage awnings/canopies to provide shelter and enliven ground-floor façades.
- Design residential buildings with individual units and front doors facing street, including row-house units on the lower levels of multifamily residences.
- Encourage sustainable and green building design and site planning.
- Use low-impact-development principles in building and site design as a way to meet city, state, and federal stormwater requirements. Examples of low-impact development strategies include green roofs, bioswales, filter strips, and retention/detention ponds. For additional detail refer to “Low Impact Development in Cambridge: Concepts and Criteria” (currently under development by the DPW). As an additional benefit, reducing impermeable surfaces in the area would lessen the urban heat-island effect.
- Use site design that preserves future rights-of-way identified in the Circulation Concept Plan.
- Improve existing streets to meet City standards, including streetscape improvements.
- Strengthen bicycle and pedestrian links to adjacent areas. Provide links that strengthen physical and visual connections to open space resources.
- Screen service areas from major streets.
- Parking below grade is preferred. If above-grade parking is to be provided, design it so it is not visible from nearby residential neighborhoods, from public streets, or from pathways. Line above-ground structured parking with active uses (shops, cafés, lobbies) along important public ways; use parking structures to provide visual and acoustical screening between the railroad tracks and the rest of the area.
- Design and locate lighting and signage to support the district’s pedestrian-friendly quality.

LOCATION-SPECIFIC GUIDELINES

SHOPPING CENTER (AOD-5)

- Provide pedestrian links to create strong physical and visual connections to Danehy Park.

CONCORD-ALEWIFE DESIGN GUIDELINES

- Improve the pedestrian connection to Alewife Station and to North Cambridge.
- Create a new street network, including a north-south main street.
- Ensure that a significant number of entrances for building(s) face Alewife Brook Parkway and/or new main street.
- Create a strong pedestrian link across the Alewife Brook Parkway to connect the east and west parts of the Study Area.
- Create building height/façade setbacks between 55' and 85'.

TRIANGLE (AOD-6)

- Create a pedestrian-friendly environment along CambridgePark Drive.
- Provide small setbacks (5' to 15') from the right-of-way for café seating, benches, or small open spaces.
- Screen service areas from CambridgePark Drive.
- Provide pedestrian links that strengthen physical connections to Alewife Reservation, consistent with its master plan.
- Create building height/façade setbacks between 85' and 105'.

- Locate new development to preserve right-of-way for future crossing of the railroad tracks to connect the Triangle and Quadrangle.

QUADRANGLE (AOD-1, 2, 3, 4)

- Scale and use in areas adjacent to Cambridge Highlands should be compatible with the residential neighborhood and serve as a transition between the Highlands and the rest of the Quadrangle.
- Use streetscape and other improvements to define Wilson Road as part of a major east-west connection through the Quadrangle.
- Develop a vegetated buffer between the Highlands and Quadrangle that also provides a north/south link to adjacent open spaces.
- Create an open-space system characterized by parks and green spaces of varying scales and uses.
- Use pooled resources to create a new central public open space in the Quadrangle that incorporates stormwater management.

- Locate active uses around the future open space to create a safe and active environment throughout the day and evening.
- Provide pedestrian links to strengthen physical connections to the shopping center.
- Create building height/façade setbacks between 85' and 105'.
- Create a consistent edge along Concord Avenue, with a combination of residential and retail uses.
- Use streetscape and other improvements to define Smith Place and Spinelli Place as major north-south entries into the Quadrangle, and to establish Concord Avenue as a major gateway.
- Provide pedestrian links to strengthen connections to Fresh Pond Reservation, consistent with the Fresh Pond Master Plan.
- Strengthen the streetscape and other improvements to define Concord Avenue.
- Locate new development to allow for a future above-grade crossing between the Triangle and the Quadrangle.

Critical Movement Analysis

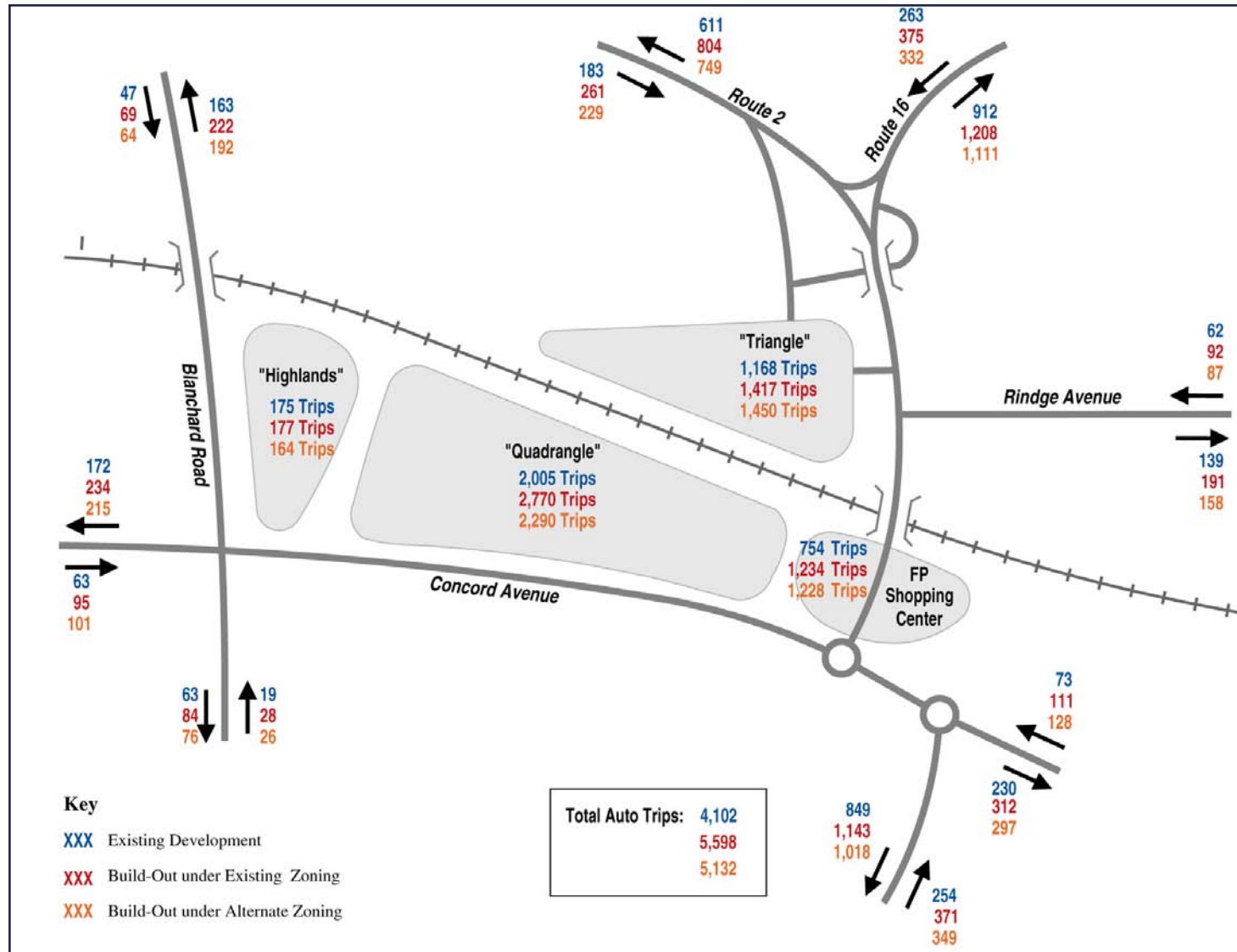
“Critical movement volume” at an intersection is defined as the sum of all conflicting traffic movements, expressed in vehicles per hour. For a *north-south street*, the conflicting movements are the combination of either the northbound left-turn and the southbound through/right-turn volume per lane or the southbound left-turn and the northbound through/right-turn volume per lane, whichever is greater. Similarly, for an *east-west street*, the conflicting movements are the combination of either the eastbound left turn and the westbound through/right-

turn volume per lane or the westbound left-turn and the eastbound through/right-turn volume per lane, whichever is greater (see Figure E-1 for an illustration).

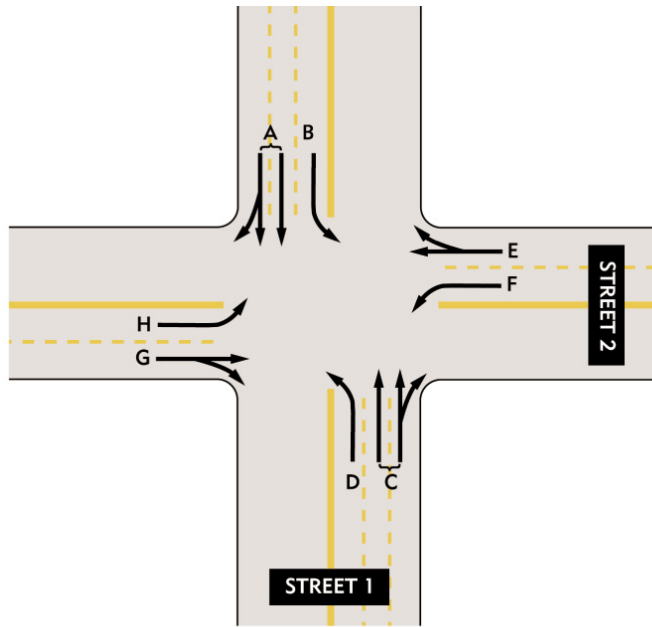
Thresholds for performance are based on total intersection capacity. The 1994 *Highway Capacity Manual* recognized that the maximum operating volume had increased from 1,800 to 1,900 vehicles per hour. This higher volume indicates that an appropriate threshold for intersection performance in this area would be 1,500 or fewer vehicles per

hour. Capacity for a rotary is calculated differently than it is for a signalized intersection and more approximates the capacity in a lane merge/diverge situation. Therefore, an appropriate performance threshold for a rotary would be 1,800 or fewer vehicles. In both cases, an intersection at or below these thresholds is considered to operate adequately, *i.e.*, motorists will wait no more than two light cycles to get through the intersection. Once these thresholds are exceeded, drivers start to experience exponentially longer wait times.

E-1 SUMMARY OF INTERSECTION OPERATIONS



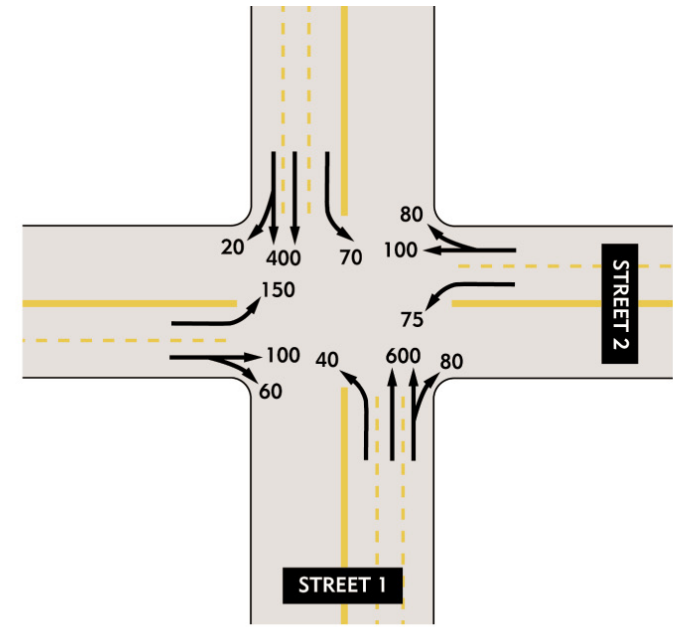
E-2 EXAMPLE OF CRITICAL MOVEMENT ANALYSIS



Street 1: $(A + 2) + D$ or $(C + 2) + B$, whichever is more

Street 2: $E + H$ or $G + F$, whichever is more

Critical Sum = Result of Street 1 + Street 2



Street 1: $[(400 + 20)/2] + 40 = 250$ or $[(600 + 80)/2] + 70 = \boxed{410}$

Street 2: $(100 + 80) + 150 = \boxed{330}$ or $(100 + 60) + 75 = 235$

Critical Sum = $410 + 330 = 740$ vehicles

E-3 CRITICAL SUM ANALYSIS SUMMARY: P.M. PEAK HOUR

Intersection	2004		2024 Buildout		2024 Buildout	
	Existing Conditions		EXISTING Zoning		PROPOSED Zoning	
	Total Volume	Critical Sum	Total Volume	Critical Sum	Total Volume	Critical Sum
Alewife Brook Parkway/Route 2	4,100	1,620	4,620	1,820	4,520	1,780
Alewife Brook Parkway/Cambridge Park Drive	4,800	1,340	5,740	1,560	5,500	1,520
Alewife Brook Parkway/Rindge Avenue	4,730	1,560	5,680	1,760	5,400	1,730
"Ground Round" Rotary	4,300	1,880	5,640	2,440	5,140	2,270
"Sozio" Rotary	4,040	1,670	4,760	1,870	4,640	1,850
Concord Avenue/Blanchard Road	2,460	1,400	2,920	1,630	2,860	1,610
Total Critical Sum above 1500 threshold *	-130		1,480		1,160	-22% *
Total Critical Sum above 1500 threshold * for NEW Development	N/A		1,050		730	-30% *
Auto Trips Generated for NEW Development	N/A		1,500		1,030	-31% *

* 1800 threshold for rotaries

* xx% = Change, Proposed Zoning v. Existing Zoning

Transportation Recommendations

1. Undertake safety improvements

OBJECTIVE

Enhance safety for all modes throughout the Study Area.

BLANCHARD ROAD

STRATEGY

Address speeding, particularly during off-peak hours, in cooperation with Belmont.

Improve pedestrian facilities

RECOMMENDATIONS

BLANCHARD ROAD NORTH OF CONCORD AVENUE

- Develop traffic-calming options to be built as part of planned street reconstruction. In 2004, Cambridge and Belmont traffic-calming staff conducted public meetings on traffic calming on Blanchard Road. Construction documents and a bid package for this project have been developed. Construction is scheduled for 2006.

BLANCHARD ROAD SOUTH OF CONCORD AVENUE

- Hire consultant to conduct study and develop recommendations for how to reduce speeding.

BLANCHARD ROAD AND GROVE STREET

- Improve intersection through geometric changes, improved signage, and traffic calming. Public meetings have been held on this subject, and the design is complete. The Town of Belmont will be undertaking construction of the project.
- Implement traffic-calming measures.
- Improve sidewalk accessibility and walkability wherever possible.
- Improve safety at parking lots through curb-cut redesign.
- Improve crosswalk markings.

OBJECTIVE	CONCORD AVENUE	
Enhance safety for all modes throughout the Study Area.	STRATEGY	RECOMMENDATIONS
	<i>Improve safety for pedestrians at crosswalks, particularly with regard to bus stops along Concord Avenue.</i>	<ul style="list-style-type: none"> • Test viability of a left-turn lane on Concord Ave at Spinelli Way. If possible, create a left-turn lane along the length of Concord Ave. eastbound, incorporating pedestrian crossing islands at Spinelli Way, Smith Place, and Fawcett Street, and possibly Moulton Street.
	<i>Improve intersection operation.</i>	<p>CONCORD AVE AND WHEELER STREET</p> <ul style="list-style-type: none"> • Improve signage to increase awareness of signal in the short term. In the long term, connect Wheeler Street to Fawcett Street and eliminate the Concord Ave/Wheeler Street intersection.
		<p>CONCORD AVE AND SMITH PLACE</p> <ul style="list-style-type: none"> • Review options for adjusting alignment of Smith Place to improve turning movements. <p>SMITH PLACE</p> <ul style="list-style-type: none"> • Create a continuous pedestrian walkway along the east side of the street to create short-term safety improvement. In the long term, rebuild Smith Place with sidewalks on both sides and realign the street where it intersects with Concord Avenue.
RINDGE AVENUE/ALEWIFE BROOK PARKWAY		
	STRATEGY	RECOMMENDATIONS
	<i>Improve intersection for pedestrian crossings; improve walkway conditions along Alewife Brook Parkway.</i>	<ul style="list-style-type: none"> • Add appropriate ADA ramps; improve curb radii for safer and more accessible pedestrian crossing; renovate pedestrian walkway on north side of Rindge Ave.
T STATION ROAD BETWEEN CAMBRIDGEPARK DRIVE AND MINUTEMAN BIKEWAY		
	STRATEGY	RECOMMENDATIONS
	<i>Redesign road to enhance conditions for pedestrians and cyclists and clarify lane configurations for motorists; reduce speeds; enhance crossing from T to Minuteman Bikeway.</i>	<ul style="list-style-type: none"> • Coordinate with the MHD Belmont-Cambridge-Somerville project that is improving path connections from the Minuteman Bikeway to the Belmont path along the Alewife Reservation. • Improve pedestrian crossing from the T area to the Minuteman Bikeway. • Redesign the road; rebuild it, when the opportunity arises, with continuous bicycle and pedestrian facilities on both sides.

OBJECTIVE	CAMBRIDGE HIGHLANDS STREETS	RECOMMENDATIONS
Enhance safety for all modes throughout the Study Area.		<ul style="list-style-type: none"> Examine cut-throughs and speeding issues.

2. Reduce new auto trips

OBJECTIVE	STRATEGY	RECOMMENDATIONS
Achieve a significant reduction in new auto-trip generation from development within the Study Area.	<p><i>Implement transportation demand management (TDM) measures or infrastructure projects that support alternatives to driving.</i></p> <p><i>Infrastructure projects to enhance non-auto mobility</i></p>	<ul style="list-style-type: none"> Require new development to support the goal of a reduced auto mode share with a package of measures beyond the level of TDM already required by the City under PTDM initiatives. Examples of measures that might be considered include: <ul style="list-style-type: none"> Car-sharing-service membership for residents and/or employees to reduce individual car ownership; use of set-aside of parking spaces for car-sharing vehicles Provision of T passes for households to encourage transit use Commercial and residential membership in a transportation management association (TMA) with a coordinator to enable TMA benefits such as shuttle and vanpool programs Graduated parking rates (increased rate for multiple cars/space) to discourage multiple car ownership Shuttle service, including connections to transit stations, to provide attractive alternative to single-occupancy-vehicle auto travel Allocation of space for transportation information center to promote/encourage non-auto modes Bicycle fleet and support facilities available to residents or employees Allocation of space for day-care facilities to reduce vehicle trips associated with child care drop-off State-of-the-art public transit stops (e.g., shelters, seats, information, etc.) Creation of a pedestrian/bicycle overpass over the railroad tracks connecting the Quadrangle and Triangle to enhance access to transit and improve overall connections throughout the Study Area. This would include right-of-way protection and/or providing accommodation for such a connection within a building.

OBJECTIVE	STRATEGY	RECOMMENDATIONS
Achieve a significant reduction in new auto-trip generation from development within the Study Area.	<i>Infrastructure projects to enhance non-auto mobility</i>	<ul style="list-style-type: none"> Upgraded pedestrian crossings of Concord Avenue and Blanchard Avenue, particularly to improve safety Secure, sheltered bicycle parking facility located close to transit, to improve intermodal connections. Roadway and streetscape improvement to better accommodate non-auto modes, particularly bicyclists and pedestrians Protect rights-of-way needed for bicycle and pedestrian accommodations, such as Watertown Branch and North Cambridge Railroad crossings/path.

3. Enhance access to various study area sites

STRATEGY	RECOMMENDATIONS
<i>Create new roads.</i>	<ul style="list-style-type: none"> Create new streets as shown in the plan to provide safe and convenient access to future development for bicyclists and pedestrians, particularly within the Quadrangle and the Shopping Center area. Develop detailed roadway and pathway layouts/cross sections based on conceptual plan. As the area develops/redevelops, protect rights-of-way for new roadways/pathways as identified in the conceptual plan.
<i>Improve existing roads.</i>	<ul style="list-style-type: none"> Improve existing roadways and sidewalks as appropriate to facilitate access and provide a safe and pleasant experience for travelers, regardless of mode.
<i>Fresh Pond Shopping Center</i>	<ul style="list-style-type: none"> Improve access from the Alewife Brook Parkway bridge to the shopping center, especially along desire lines connecting the area to Alewife Station and the residential neighborhoods.

4. Reduce disturbance noise and vibration

OBJECTIVE	STRATEGY	RECOMMENDATIONS
Reduce noise and vibration associated with motorcycles, pick-up trucks, heavy trucks, and buses adjacent to the Highlands.	<i>Improve the condition of Blanchard Road.</i>	<ul style="list-style-type: none">• Repave Blanchard Road to improve its surface, thereby reducing noise and vibration.
OBJECTIVE	STRATEGY	RECOMMENDATIONS
Address significant truck and heavy vehicle traffic on Blanchard Road.	<i>Review enforcement mechanisms, limitations, and potential improvements.</i>	<ul style="list-style-type: none">• Request regular, targeted police enforcement of truck-route violations.• Residents will direct complaints and requests for enforcement to the Cambridge Police Department Truck Hotline.